Statistical Bulletin

METROPOLITAN LIFE INSURANCE COMPANY

Volume 31 MARCH 1950 *Number 3*

International Variation in Longevity

GREAT contrasts are observed in the longevity records among the countries of the world. In areas where health standards are high, the expectation of life at birth is not far from the Biblical three score and ten; indeed, white females in our country have already exceeded that mark. On the other hand, in some countries where health conditions are poor, the expectation of life is little better today than in ancient times. Comparisons may be made in the table on page 2. In most instances the data are shown for two periods, one about the turn of the century, and the second for the latest years available. The extended series of figures for the United States permits comparison with other countries at corresponding periods.

The best records for longevity are found in the English-speaking and in the Scandinavian countries. New Zealand has long had the banner record for longevity, the expectation of life at birth in that country being 67.0 years in 1934-1938, about five years more than in the United States near the same period. When later figures become available for New Zealand, they probably will be appreciably higher. Other notable records are 65.3 years for Australia in 1932-1934; 66.5 for the Netherlands in the prewar decade; 66.7 for Denmark in 1941-1945, the period of war and occupation; 65.6 for Sweden in 1936-1940, and 65.3 years for France in 1947. A somewhat lower level of longevity is found in the remainder of Western and Central Europe; an exception is Germany, where the expectation of life at birth was 61.4 years in 1932-1934, practically the same as that for the United States near that time. The nonwhite population of the United States, with an expectation of life of 60.3 years in 1948, compares very favorably with that in many of the Central European countries, and is far above the level for most of Asia and South America.

Eastern Europe and most of the Latin American countries hold an intermediate position with respect to the average length of life. The latest data available for Russia (European) are for the years 1926-1927, when the expectation of life at birth there was 44.4 years, or well below the figure for the white population of the United States a generation earlier. Mexico, on our own southern border, showed an expectation of life

EXPECTATION OF LIFE AT BIRTH BY SEX IN VARIOUS COUNTRIES FOR SPECIFIED PERIODS

COUNTRY AND PERIOD	TOTAL PERSONS[1]	MALES	FEMALES
North and South America			
United States			
White			
1900-1902	49.7	48.2	51.1
1901-1910	50.9	49.3	52.5
1919-1921	57.4	56.3	58.5
1920-1929	59.2	57.9	60.6
1929-1931	60.9	59.1	62.7
1930-1939	62.6	60.6	64.6
1939-1941	64.9	62.8	67.3
1948	68.3	65.5	71.0
Non-White			
1900-1902 (Negroes)	33.8	32.5	35.0
1948	60.3	58.1	62.5
Canada			
1926-1930	58.7	57.7	59.7
1947	67.2	65.2	69.1
Mexico			
1930	33.3	32.4	34.1
Panama			
1941-1943	52.0	50.5	53.5
Colombia			
1939-1941	46.3	[2]	[2]
Venezuela			
1941-1942	46.7	45.8	47.6
Chile			
1919-1922	31.6	30.9	32.2
1939-1942	41.9	40.7	43.1
Europe			
England and Wales			
1901-1910	50.5	48.5	52.4
1937	62.3	60.2	64.4
Scotland			
1910-1912	51.7	50.1	53.2
1930-1932	57.8	56.0	59.5
Northern Ireland			
1900-1902	48.7	50.7	46.7
1936-1938	58.5	57.8	59.2
Ireland			
1925-1927	57.7	57.4	57.9
1940-1942	60.0	59.0	61.0
Iceland			
1901-1910	50.7	48.3	53.1
1931-1940	63.3	60.9	65.6
Norway			
1901-1911	56.3	54.8	57.7
1921-1931	62.4	61.0	63.8
Sweden			
1901-1910	55.8	54.5	57.0
1936-1940	65.6	64.3	66.9
Denmark			
1901-1905	54.6	52.4	56.2
1941-1945	66.7	65.6	67.7
Netherlands			
1900-1909	52.2	51.0	53.4
1931-1940	66.5	65.7	67.2
Belgium			
1891-1900	47.1	45.4	48.8
1928-1932	57.9	56.0	59.8
France			
1898-1903	47.4	45.7	49.1
1947	65.3	62.8	67.7
Switzerland			
1901-1910	50.8	49.3	52.2
1939-1944	64.9	62.7	67.0
Germany			
1901-1910	46.6	44.8	48.3
1932-1934	61.4	59.9	62.8
Austria			
1901-1905	40.1	39.1	41.1
1930-1933	56.5	54.5	58.5
Czechoslovakia			
1899-1902[3]	40.3	38.9	41.7
1929-1932	53.6	51.9	55.2
Poland			
1931-1932	49.8	48.2	51.4
Hungary			
1930-1931	49.8	48.3	51.3
1941	56.6	54.9	58.2
Finland			
1901-1910	46.7	45.3	48.1
1941-1945	57.9	54.6	61.1
Bulgaria			
1900-1905	42.2	42.1	42.2
1925-1928	46.3	45.9	46.6
Russia (European)			
1896-1897	32.4	31.4	33.4
1926-1927	44.4	41.9	46.8
Portugal			
1939-1942	50.7	48.6	52.8
Spain			
1930-1931	50.3	48.7	51.9
Italy			
1901-1910	44.5	44.2	44.8
1930-1932	54.9	53.8	56.0
Greece			
1920	44.7	42.9	46.5
1928	50.0	49.1	50.9
Oceania			
Australia			
1901-1910	57.0	55.2	58.8
1932-1934	65.3	63.5	67.1
New Zealand			
1901-1905	59.4	58.1	60.6
1934-1938	67.0	65.5	68.5
Africa and Asia			
Egypt			
1936-1938	38.6	35.7	41.5
Union of So. Africa			
European			
1920-1922	57.4	55.6	59.2
1940	63.8	61.5	66.1
Non-European			
1935-1937	40.6	40.2	40.9
Japan			
1899-1903	44.5	44.0	44.9
1935-1936	48.3	46.9	49.6
India			
1891-1901	23.8	23.6	24.0
1921-1931	26.8	26.9	26.6

[1] Average of male and female except for United States, white, in 1939-1941.

[2] Not available.

[3] Based on data for Bohemia and Moravia-Silesia.

of only 33.3 years in 1930, the latest year available. This figure is about the same as for our country at the time of its founding.

The poorest record for longevity is found in Asia and in most of Africa. India, in 1931, had an expectation of life at birth of slightly less than 27 years, not much higher than that estimated for Rome 2,000 years ago. For Egypt, the figure was 38.6 years in 1936-1938. On the other hand in Japan before the war, the average compared favorably with that for Eastern Europe.

Women almost everywhere enjoy longer life than men, as is evident from the table. The excess ranges from less than one year in Bulgaria and among the native population of the Union of South Africa, to five and a half years among white women in our own country, and to six and a half years in Finland. In India, however, men have a slightly higher expectation of life, exceeding that for women by one third of a year. Generally speaking, the advantage for women is greatest where expectation of life is highest.

It is encouraging that progress has been made in increasing longevity throughout the world since the turn of the century. In some countries the increase has been very substantial. In Chile, for example, the rise in expectation of life at birth amounted to more than 10 years between 1919-1922 and 1939-1942. But much more can be done to raise the level of longevity in the more backward areas of the world. To help the peoples of those areas, the World Health Organization is prepared to provide technical assistance and education so that the pestilences which still ravage these peoples may be conquered. Raising the health level of the backward countries depends also upon advances in their economic life.

$269,000,000 Paid in Death Claims in 1949

THE Metropolitan Life Insurance Company paid $269,000,000 in death claims in 1949, the second successive year in which payments exceeded one quarter of a billion dollars. The amount disbursed last year was nearly $3,500,000 more than in 1948, and about $98,000,000 more than in 1939. The increase in payments to beneficiaries reflects solely the long-term growth of the Company's business, inasmuch as the mortality rate among the policyholders has declined in the past decade, dropping to an all-time low last year.

Payments on deaths from the cardiovascular-renal diseases and from cancer accounted for two out of every three dollars paid in death claims by the Metropolitan in 1949. Together, these diseases were responsible for the disbursement of $184,776,000, or for 68.7 percent of the total. The detailed figures are shown in the table on page 5.

Actually, the cardiovascular-renal diseases, which accounted for 51.7 percent of all the death claim pay-

ments last year, should be considered in a class by themselves. A decade earlier the proportion paid on account of these diseases was 43.8 percent. It is noteworthy that the amount paid on deaths from diseases of the coronary arteries and angina pectoris alone—$59,201,000 in 1949—was greater than that for any other single cause shown in the table. Chronic nephritis accounted for the smallest portion of the amount paid on deaths from the cardiovascular-renal diseases, but even so the amount came to $10,876,000. It is clear from these figures why the Life insurance companies, through the Life Insurance Medical Research Fund, are supporting studies on the heart and arteries.

The large toll of life claimed annually by cancer is reflected in the fact that the Company paid $45,601,000 in claims on deaths from this cause in 1949. Such payments comprised 17.0 percent of the total last year, as compared with 13.4 percent 10 years ago. Part of this rise undoubtedly reflects the increasing accuracy of diagnosis and hence the more frequent certification of cancer as a cause of death.

Although diabetes ranks next to cancer in the list of diseases, the two are widely separated with respect to the amounts paid in claims; the disbursements on deaths from diabetes were only one sixth those for cancer. Two other diseases of middle and later life—cirrhosis of the liver and ulcers of the stomach and duodenum—ranked high in death claims paid.

This insurance record attests to the remarkable progress made in reducing the mortality from pneumonia and influenza, and from tuberculosis. While death claim payments for all causes combined rose by nearly 60 percent from 1939 to 1949, payments for deaths from tuberculosis dropped by 20 percent and from pneumonia and influenza by 40 percent. All these diseases together accounted for little more than 4 percent of the total claim payments last year; a decade ago they accounted for nearly 10 percent, and in 1929 for no less than 20 percent of the payments.

The marked gains scored over appendicitis are also striking. Claim payments on deaths from this cause dropped from $2,659,000 to $1,025,000 between 1939 and 1949, or from 1.6 percent to .4 percent of the total. The story is much the same for maternal mortality. Despite a greatly increased number of insured women and a rising birth rate, payments on account of maternal deaths have dropped materially.

The epidemic of acute poliomyelitis last year resulted in claim payments more than twice as high as in 1948 and in 1946, the most recent epidemic years. The amount paid out in 1949 totaled $741,000. While this was only .3 percent of the total disbursements, it was nine times as much as the payments for the group of communicable diseases of childhood and fourteen times the payments for cerebrospinal meningitis.

The disbursements on deaths from the external causes came to $27,558,000, or 10.2 percent of the total in

1949. Deaths from accidents accounted for $21,304,000, suicide for $4,928,000, and homicide for $1,326,000 in claim payments. Ten years ago each of these causes accounted for a larger proportion of the total and, together, for 12.2 percent of all claim payments.

There was slightly more than $3,860,000 disbursed in 1949 for claim payments on policies in the Industrial and Ordinary Departments which had been in force less than one year. In one third of these cases the policies had actually been in force less than three months.

AMOUNTS DISBURSED ON ACCOUNT OF DEATHS FROM SELECTED CAUSES. ENTIRE EXPERIENCE OF THE METROPOLITAN LIFE INSURANCE COMPANY. ALL AGES. 1949, 1948, AND 1939 COMPARED

CAUSE OF DEATH	AMOUNTS DISBURSED* (IN THOUSANDS)			PERCENT OF TOTAL		
	1949	1948	1939	1949	1948	1939
	$	$	$			
ALL CAUSES—TOTAL	269,003	265,437	171,274	100.0	100.0	100.0
Natural causes of death						
Principal chronic cardiovascular-renal diseases	139,175	137,878	74,943	51.7	51.9	43.8
Cerebral hemorrhage	19,940	20,560	12,174	7.4	7.7	7.1
Diseases of the coronary arteries and angina pectoris	59,201	58,658	21,795	22.0	22.1	12.7
Other chronic heart diseases†	49,158	48,154	30,748	18.3	18.1	18.0
Chronic nephritis	10,876	10,506	10,226	4.0	4.0	6.0
Cancer—all forms	45,601	43,377	22,913	17.0	16.3	13.4
Diabetes mellitus	7,598	6,304	4,799	2.8	2.4	2.8
Tuberculosis—all forms	5,843	6,549	7,538	2.2	2.5	4.4
Pneumonia and Influenza	5,247	5,768	8,874	2.0	2.2	5.2
Cirrhosis of the liver	4,321	4,015	2,142	1.6	1.5	1.3
Ulcers of the stomach and duodenum	2,806	2,667	1,982	1.0	1.0	1.2
Syphilis	1,700	2,165	1,808	.6	.8	1.1
Appendicitis	1,025	978	2,659	.4	.4	1.6
Acute poliomyelitis	741	344	68	.3	.1	‡
Puerperal state—total	394	450	752	.1	.2	.4
Diarrhea and enteritis	386	343	361	.1	.1	.2
Communicable diseases of childhood	80	72	155	‡	‡	.1
Cerebrospinal meningitis	54	74	54	‡	‡	‡
External causes						
Suicide	4,928	4,609	4,339	1.8	1.7	2.5
Homicide	1,326	1,329	1,156	.5	.5	.7
Accidents—total	21,304	22,254	15,388	7.9	8.4	9.0
Motor vehicle accidents	8,794	9,435	6,772	3.3	3.6	4.0

*Includes additional accidental death benefits.

†International list (1940) titles 92, 93 (c), (d), (e), and 95.

‡Less than 0.05 percent.

NOTE—Includes reinsurance received by the Metropolitan Life Insurance Company from other companies.

Pneumonia and Influenza Mortality Drops Sharply

THE marked decline in the death rate from pneumonia and influenza in the past quarter of a century ranks among the outstanding achievements of medical science. The dramatic story is told in the accompanying chart, which shows, for the Industrial policyholders of the Metropolitan Life Insurance Company, the trend of mortality from these diseases and the range between the highest and the lowest monthly death rate in each year from 1925 on.

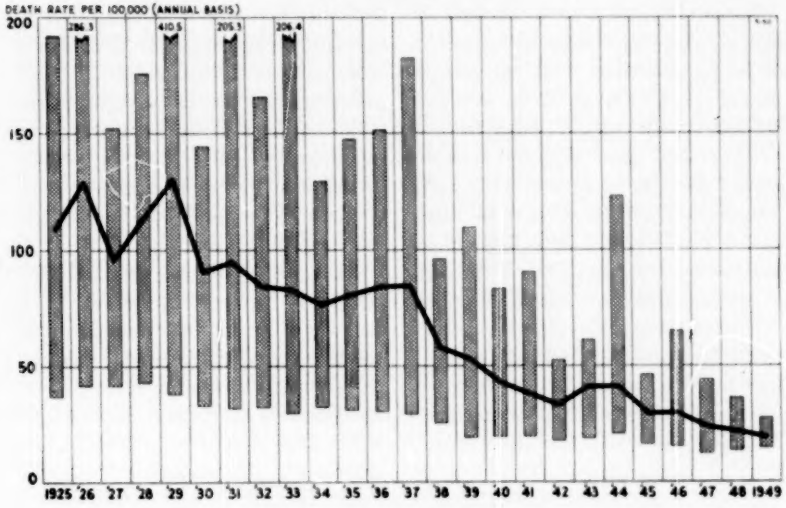
The continuous black line on the chart indicates the progress made in reducing mortality from these infections. This decline has followed closely the advances in the treatment of pneumonia. Until the latter part of the 1920s, there was no effective therapy. During the 1930s, treatment with a specific serum for each of the different types of pneumococcus was increasingly used as supplies of sera and as the special laboratory facilities for typing the pneumococcus became available. By 1937 the death rate from pneumonia and influenza among the Industrial policyholders was one quarter below the average for the five years preceding 1930.

The introduction of the sulfa drugs about 1938 greatly accelerated the decrease in mortality, and penicillin, which became available in quantity after World War II, added an even more effective weapon to medicine's defenses against pneumonia. In 1949 the death rate from pneumonia and influenza was about 80 percent lower than in the years 1925-1929.

Even more striking has been the reduction in the monthly fluctuations in the death rate from these infections. The vertical bars in the accompanying chart show the range between the highest and the lowest monthly rate recorded in each year. One of the characteristics of these diseases in the 1920s was marked seasonal variations in the death rate. In 1929, the year of the worst epidemic within the past quarter century, the death rate in winter reached a high more than 10 times the rates in late summer. It was not until serum treatment had been in use for a number of years and was gradually becoming the accepted therapy in a large part of the Nation that winter peaks in mortality were cut down. The effect of drug therapy on seasonal fluctuations was much greater than that of serum treatment. After 1937 the seasonal variation decreased rapidly until by 1949 the winter high was lower than the summer low for any pre-sulfa year.

The achievements of the past 25 years have been momentous, but they should not obscure the fact that pneumonia and influenza still rank among the leading causes of death in this country, accounting for more than 50,000 deaths a year in the general population. Further progress can be made in saving lives through the more widespread use of the techniques which have already proved so successful. But the ultimate triumph over pneumonia and influenza will come when methods of prevent-

ANNUAL DEATH RATES FROM PNEUMONIA AND INFLUENZA, AND THE RANGE OF MONTHLY VARIATION,* 1925 TO 1949
WEEKLY PREMIUM-PAYING INDUSTRIAL BUSINESS, METROPOLITAN LIFE INSURANCE COMPANY



*The annual death rates are shown by the continuous black line. The range from the lowest to the highest monthly death rate within the year is indicated by the height of the vertical shaded bar.

ing these infections are discovered. The emphasis in research is now on immunization. If the proper vaccines can be developed, these diseases will certainly be relegated to a minor position among the causes of death in this country. Progress is being made in this direction.

Continued Rise in Respiratory Cancer

THE death rate from cancer of the respiratory system has been climbing steadily for a number of years. In the past decade alone, the age-adjusted death rate from this cause rose almost 80 percent among the white Industrial policyholders of the Metropolitan Life Insurance Company at ages 1 to 74—from 5.6 per 100,000 in 1936-1938, to 10.0 in 1946-1948. However, during this period the mortality from all other forms of cancer as a group decreased somewhat.

Both sexes experienced an increase in respiratory cancer, but the upswing was much more pronounced among men than women, as is evident from the accompanying table. As a result, the death rate among white males is now almost six times that among white females, whereas

the ratio a decade earlier was less than four to one. Among white male policyholders, the death rate rose in every age group, the rise increasing progressively with each advance in age. Thus, for men at ages 65 to 74 the death rate from respiratory cancer jumped from 56 to 134 per 100,000 in the decade under review.

It is very likely that the rise recorded for cancer of the respiratory system is spurious in part at least, and represents the detection of an increasing number of cases through improved diagnosis. In this connection, it is noteworthy that for cancer of the larynx—a site directly accessible to diagnosis and treatment—the death rate remained at the same level throughout the decade. This is in sharp contrast with the situation for the rest of the respiratory tract, which is for the most part not directly accessible. Among white male policyholders, the death rate from cancers of the lung and pleura increased 87 percent between 1936-1938 and 1946-1948. Much greater has been the relative rise for cancers of the bronchus and trachea, as may be seen from the lower tier of the accompanying table.

Recognition of these internal cancers has been greatly aided by a number of recent developments. For one thing, physicians have had access in increasing measure to improved facilities and diagnostic aids such as

MORTALITY FROM CANCER OF THE RESPIRATORY SYSTEM
WHITE PERSONS BY SEX AND AGE.
METROPOLITAN LIFE INSURANCE COMPANY, WEEKLY PREMIUM-PAYING INDUSTRIAL BUSINESS, 1946-1948 AND 1936-1938

AGE; ORGAN AFFECTED	AVERAGE DEATH RATES PER 100,000				PERCENT INCREASE 1946-1948 SINCE 1936-1938		RATIO MALE TO FEMALE DEATH RATE 1946-1948
	WHITE MALES		WHITE FEMALES				
	1946—1948	1936—1938	1946—1948	1936—1938	WHITE MALES	WHITE FEMALES	
Respiratory—Total							
Ages 1-74*	17.4	9.1	3.0	2.4	91	25	5.8
25-34	1.4	1.2	.6	.4	17	50	2.3
35-44	8.6	6.6	2.4	2.4	30	0	3.6
45-54	48.5	28.2	7.0	5.7	72	23	6.9
55-64	108.2	54.2	16.1	12.4	100	30	6.7
65-74	133.9	55.9	26.5	19.3	140	37	5.1
Ages 1-74*							
Larynx	2.3	2.3	.2	.2	0	0	11.5
Lung and pleura	9.9	5.3	2.2	1.9	87	16	4.5
Bronchus and trachea	5.2	1.5	.6	.3	247	100	8.7

*Standardized for age.

the X-ray, the bronchoscope, and laboratory examination of lung secretions. Then, too, the greatly widened use of mass X-ray in the campaign against tuberculosis has led to the incidental discovery of many respiratory cancers. In addition, the organized campaign against cancer has made both the public and the medical profession more alert to the danger signals. All these developments have contributed to the discovery of an increasing number of cases of the disease and hence to its more frequent certification as a cause of death.

In point of fact, progress has been made toward the control of respiratory cancer. Less than two decades ago, treatment of lung cancer, other than palliative, was not even seriously considered. Since 1933 when total excision of a lung was first shown to be possible, the effectiveness of such surgery has been greatly improved. Operative mortality has been materially reduced, and the number of five-year "cures" has been mounting. The average length of time elapsed between the first symptom and the establishment of diagnosis has been reduced somewhat. This phase of the problem, however, can still be improved materially. According to medical authority,* even now 10 months are lost after the onset of symptoms, with the result that in only one tenth of the patients who present themselves for treatment is the growth still locally confined. Clearly, there is need for more universal X-ray screening of the population past 45 years of age, and prompt follow-up of all patients found to have nontuberculous chest disease.

*R. H. Overholt and I. C. Schmidt, "Silent Phase of Cancer of the Lung," Journal of the American Medical Association, Vol. 141, pp. 817-820, Nov. 19, 1949.

Motor Vehicles Greatest Hazard to Bicycle Riders

THE annual death toll from bicycle accidents in this country is smaller now than before the war. In 1941 more than 900 lives were lost in bicycle-motor vehicle collisions, which account for the bulk of cycling fatalities. Such collisions caused about 500 deaths in 1948, and judging from the experience of the Metropolitan Life Insurance Company the figure dropped still further in 1949. This reduction in mortality is even more impressive when viewed in the light of the record high number of motor vehicles and bicycles now in use in our country. The number of cyclists, now totaling about 18,000,000, has doubled since the prewar period. Much of the credit for the reduction in fatalities belongs to the traffic authorities, schools, bicycle clubs and other organizations which have worked toward an effective safety program for cyclists.

The results so far are encouraging, but further reductions can and should be made. The arrival of spring, when cyclists once again begin to roll along the streets and highways, makes it particularly timely to

call attention to the hazards involved. The six months from May through October contribute substantially more than one half of the annual death toll from bicycle accidents.

Details regarding the circumstances surrounding bicycle accidents are available from a study of the claim records of 170 Metropolitan Life Insurance Company Industrial policyholders who were killed in such accidents in the years 1946 through 1948. This study, which represents largely an urban experience, showed that about seven eighths of such fatalities resulted from the collision between a bicycle and a motor vehicle. The remaining one eighth of the deaths came about largely from falls off bicycles. A few lives were lost in collision with a street car, a railroad train, or a fixed object. Only two of the fatally injured were pedestrians run into by cyclists.

In bicycle-motor vehicle collisions it is usually not possible to determine from the insurance records whether the driver or the cyclist was at fault, or what wrong action of either caused the accident. Information was given in a sufficient number of instances, however, to show that while frequently the fault lay with the drivers of cars or trucks, lack of caution and other hazardous practices of cyclists played a large part in these deaths. Among the practices were swerving or cutting in front of motor vehicles, lack of caution while coming out of or turning into driveways, riding two people on one bicycle, riding on the highway with only limited cycling experience, hitching onto automobiles, and riding down steep grades. In a few instances, bicyclists were killed when they ran into car doors being opened by drivers of parked cars.

Particular interest attaches to the fact that 71, or nearly half of the 147 fatalities in bicycle-motor vehicle collisions in this experience were among boys 10 to 14 years of age. Boys 15 to 19 accounted for 23 of the deaths, and those 5 to 9 years for another 13. Altogether, boys between 5 and 19 accounted for about three quarters of all the victims in bicycle-motor vehicle collisions. Only 15 females lost their lives in such accidents, 10 of whom were in the age group 10 to 14. These facts on the age incidence of fatalities take on added significance when it is noted that the school-age population has been increasing in recent years and will continue to do so for some time. If further reductions in cycling fatalities are to be effected, safety efforts will need to be intensified.

DEATH RATES* PER 100,000 POLICYHOLDERS FROM SELECTED CAUSES ACCORDING TO THE SIXTH AND THE FIFTH REVISIONS OF THE INTERNATIONAL LIST

INDUSTRIAL PREMIUM-PAYING BUSINESS, *Weekly and Monthly Combined*
METROPOLITAN LIFE INSURANCE COMPANY

February 1950

INTERNATIONAL LIST NUMBER (6TH REVISION)	CAUSE OF DEATH	ANNUAL RATE PER 100,000 POLICYHOLDERS*					
		6th Revision		5th Revision			
		Feb.	Jan.-Feb.	February		Jan.-Feb.	
		1950	1950	1950	1949	1950	1949
	ALL CAUSES—TOTAL	648.8	677.6	648.8	674.0	677.6	683.2
1-19	Tuberculosis (all forms)	18.7	21.2	19.4	25.1	22.1	25.6
1- 8	Tuberculosis of respiratory system	17.3	19.4	17.9	23.2	20.2	23.5
20-29	Syphilis	4.5	4.0	6.0	6.2	5.3	5.7
50,55-56,85	Communicable diseases of childhood	.8	.8	.7	1.3	.8	1.0
80	Acute poliomyelitis	.4	.4	.5	.1	.5	.3
140-205	Malignant neoplasms	114.4	116.9	118.4	118.6	121.3	118.4
260	Diabetes mellitus	14.7	14.5	26.3	26.6	27.3	26.4
[330-334,410-450,590-594]	Diseases of the cardiovascular-renal system	334.3	347.4	320.8	323.1	334.7	337.5
330-334	Vascular lesions, central nervous system	67.9	69.1	58.4	62.0	60.9	63.1
410-443	Diseases of heart	239.0	250.9	220.4	218.5	231.9	231.7
410-416	Chronic rheumatic heart disease	12.7	13.8	14.6	12.4	15.4	14.6
420-422	Arteriosclerotic and degenerative heart disease	168.0	175.5	†	†	†	†
440-443	Hypertension with heart disease	49.1	53.2	†	†	†	†
430-434	Other diseases of heart	9.2	8.4	†	†	†	†
444-447	Hypertension without mention of heart	7.9	7.5	1.1	1.0	1.3	1.1
450	General arteriosclerosis	7.7	7.9	5.5	5.0	5.9	6.0
590-594	Nephritis and nephrosis	11.8	12.0	35.4	36.6	34.7	35.6
490-493	Pneumonia	17.7	18.5	19.9	23.9	20.3	24.9
480-483	Influenza	1.8	2.3	1.8	1.3	1.9	1.8
540-542	Ulcers of stomach and duodenum	4.4	4.6	5.1	4.8	5.0	4.8
550-553	Appendicitis	1.1	1.1	1.3	1.5	1.3	2.0
560-561,570	Hernia and intestinal obstruction	4.1	4.3	4.1	5.6	4.3	5.4
543,571-572	Gastritis, duodenitis, enteritis, etc	3.7	3.1	2.9	2.6	2.7	2.3
581	Cirrhosis of liver	9.3	10.2	10.4	10.9	11.3	10.6
640-689	Complications of pregnancy, childbirth	1.8	2.0	2.2	2.4	2.3	2.5
E963,E970-E979	Suicide	4.8	5.6	4.8	6.3	5.6	5.9
E964,E980-E984	Homicide	2.8	2.9	2.8	2.5	2.9	2.6
[E800-E802,E810-E835,E840-E962] E810-E835	Accidents—total	31.2	35.1	33.4	37.4	37.2	38.1
	Motor vehicle	13.3	15.0	13.5	11.6	15.3	13.2
	Home	7.2	7.8	8.1	9.6	9.0	9.8
	Occupational	3.2	3.4	3.1	3.8	3.4	3.5
	All other causes	78.5	82.7	67.9	73.8	71.1	67.4

*The rates for 1950 and 1949 are provisional.
†Not available separately.

Correspondence on the subjects discussed in the STATISTICAL BULLETIN may be addressed to:

The Editor,
STATISTICAL BULLETIN
Metropolitan Life Insurance Company
1 Madison Avenue, New York 10, N. Y

STATISTICAL BULLETIN
1 Madison Avenue, New York 10, N. Y.
Return Postage Guaranteed

Sec. 34.66, P. L. & R.
U. S. POSTAGE
PAID
Long Island City 1, N. Y.
Permit No. 7

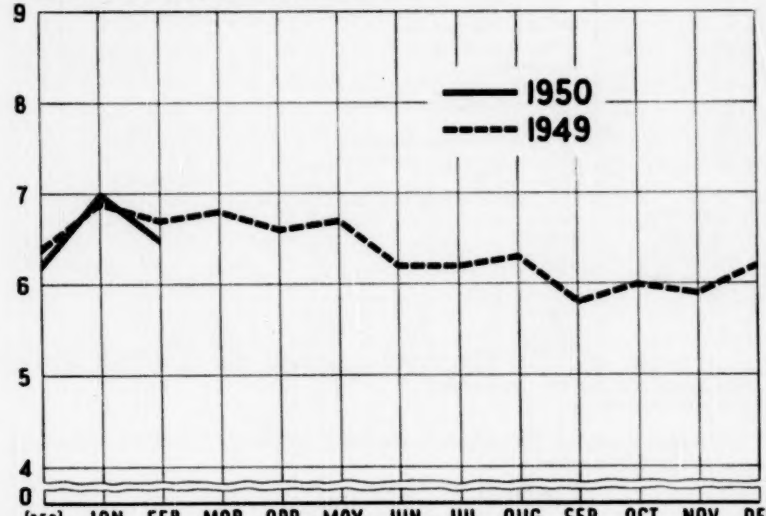
Mr. Eugene B. Poser
University Microfilms
313 N. First Street
Ann Arbor, Michigan

S22

MORTALITY FROM ALL CAUSES

METROPOLITAN LIFE INSURANCE COMPANY · INDUSTRIAL PREMIUM-PAYING BUSINESS
WEEKLY AND MONTHLY COMBINED

DEATH RATES PER 1,000 POLICYHOLDERS · ANNUAL BASIS



(DEC)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	6.9	6.7	6.8	6.6	6.7	6.2	6.2	6.3	5.8	6.0	5.9	6.2
1950	7.0	6.5										

Figures are provisional

P.P.M.—PRINTED IN U.S.A.—39498—(3-50)